

SLAVNOV, V.N.

Dynamics of radioiodine accumulation in the thyroid and blood  
plasma of animals given drugs. Vrach.delo no.11:1135-1137 N'58  
(MIRA 12:1)

1. Kafedra rentgenologii i radiologii (zav. - dots. N.F. Zarkevich)  
Kiyevskogo meditsinskogo instituta.  
(THYROID GLAND)

SLAVNOV, V. N. Cand Med Sci -- (diss) "Dynamics of the accumulation of radioactive iodine by the thyroid gland and blood plasma of animals under the action of certain pharmacological substances." Kiev, 1959. 11 pp (Kiev Order of Labor Red Banner Med Inst im Academician A. A. Bogomolets), 200 copies (KL, 47-59, 117)

SLAVNOV, V.N., kand.med.nauk (Kiyev)

Albumin fractions in blood serum and state of the antitoxic liver function in rabbits following repeated x-irradiation of varying dosage. Vrach. delo no.8:26-30 Ag '61. (MIRA 15:3)

1. Institut infektsionnykh bolezney AMN SSSR.  
(BLOOD PROTEINS)  
(LIVER)  
(X RAYS--PHYSIOLOGICAL EFFECT)

27.1220

39565  
S/205/62/002/003/011/015  
1021/1221

AUTHOR: Slavnov, V. N.

TITLE: Content of protein fractions of the blood and the state of antitoxic function of the liver in animals repeatedly irradiated with various doses of X-rays

PERIODICAL: Radiobiologiya, v. 2, no. 3, 1962, 461-467

TEXT: Protein fractions were determined by paper electrophoresis in veronal buffer pH 6.8. The antitoxic function of liver was examined by determination of hippuric acid in the urine of the animals. Irradiation of the animals resulted in a decrease of the general protein content, a decrease in albumin and gamma globulin fraction and an increase in the alpha and beta globulin fractions. Quantitative changes in protein fractions of the blood and antitoxic function of liver depended upon the dose of ionizing radiation, the change being greater at the greater dose. Animals, irradiated with a dose of 450 r, 4 weeks before a repeated irradiation with a lethal dose (1200 r) died earlier than animals irradiated only with the lethal dose. If the interval between the first irradiation and the second was 2-2.5 months the animals were more resistant to radiation damage than those which were irradiated only with the lethal dose. The repeatedly irradiated animals survived 10-12 months and the antitoxic function of the livers in these animals was also less damaged. Examination of protein fractions of blood and antitoxic function of the liver during serum sickness may be of practical value as a prognostic procedure. There are 3 figures.

ASSOCIATION: Institut usovershenstvovaniya vrachey (Postgraduate Medical Institute) Kiev

SUBMITTED: October 3, 1960

Card 1/1

SIVACHENKO, T.P.; SLAVNOV, V.N.

Use of radioactive iodine in the treatment of thyrotoxicoses.  
Klin.khir. no.11:58-62 N '62. (MIRA 16:2)

1. Kafedra meditsinskoy radiologii (zav. - prof. N.F. Lipkan)  
Kiyevskogo instituta usovershenstvovaniya vrachey.  
(THYROID GLAND—DISEASES) (IODINE—ISOTOPES)

SLAVNOV, V.N.; SIVACHENKO, T.P.

Determination of the functional state of the thyroid gland with  
the DSU-61 type diagnostic scintillation apparatus. Med.rad.  
no.1:36-38'63. (MIRA 16:10)

1. Iz kafedry meditsinskoy radiologii (zav. - prof. N.F.Lipkan)  
Kiyevskogo instituta usovershenstvovaniya vrachey.  
(IODINE ISOTOPES) (THYROID GLAND)  
(SCINTILLATION COUNTERS)

SLAVNOV, V.N., kand.med.nauk; SIVACHENKO, T.P., dotsent

Use of ~~the~~ diagnostic scintillation device for determining the functional state of the thyroid gland. Vrach.delo no.1: 79-83 Ja '63. (MIRA 16:2)

1. Kafedra meditsinskoy radiologii (zav. - prof. N.F. Lipkan)  
Kiyevskogo instituta usovershenstvovaniya vrachey.  
(THYROID GLAND)  
(DIAGNOSIS, RADIOSCOPIC ~~EQUIPMENT~~ AND SUPPLIES)

SIVACHENKO, T.P.; SLAVNOV, V.N.

Functional state of the thyroid gland in thyrotoxicosis at  
various periods following radioactive iodine therapy. Med.  
rad. 8 no.2:5-10 F'63 (MIRA 16:11)

1. Iz kafedry meditsinskoy radiologii (zav. - prof. N.F.  
Lipkan) Kiyevskogo instituta usovershenstvovaniya vrachey.

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SIVACHENKO, T.P.; SLAVNOV, V.N.

Immediate and late results of the treatment of thyrotoxicosis.  
Med. rad. 8 no.9:20-25 S'63. (MIRA 17:4)

1. Iz kafedry meditsinskoy radiologii (zav. - prof. N.F. Lipkan)  
Kiyevskogo instituta usovershenstvovaniya vrachey (rektor - dotsent  
N.N. Umovist).

SLAVNOV, V.N.; SIVACHENKO, T.G.

Determination of protein-bound iodine in thyrotoxicosis treated  
with radioactive iodine. Med. rad. 8 no.12:21-25 D '63.

(MIRA 17:8)

1. Iz kafedry meditsinskoy radiologii (zav. - prof. N.F. Lipkan)  
Kiyevskogo instituta usovershenstvovaniya vrachey.

SLAVNOV, V.N.

Lipoproteins of the blood serum in patients with thyrotoxicosis  
treated with iodine 131. Med. rad. 10 no.5:55-59 My '65.  
(MIRA 18:6)

7. Kafedra meditsinskoy radiologii (zav.-prof. N.F. Lipkan)  
Kiyevskogo instituta usovershenstvovaniya vrachey.

cholesterol metabolism in diseases of the thyroid gland in  
patients treated with  $I^{131}$ . Med. rad. 10 no.6:14-18 Je '65.

(MIRA 18:6)

1. Kafedra meditsinskoy radiologii (zav. - prof. N.F. Lipkan)  
2. Iyaya kafedra terapii (zav. - prof. I.M. Gandzha) Kiyevskogo  
Instituta usovershenstvovaniya vrachey.

VORONTSOV, I.F.; KOSENKOV, S.V.; YAKOVLEV, N.P.; BALDIN, Ya.Ye.;  
SOKOLOV, N.A.; BESHKAREV, N.A.; LYUKSHIN, H.G.; SLAVMOV,  
V.P.; CHUVAKOV, N.Ye., redaktor; DMITRIYEV, A.A., redaktor;  
KUZ'MIN, I.F., tekhnicheskiiy redaktor.

[Manual for boys under military age] Posobie dlia doprizy-  
vnika. Izd.2-e, ispr. i dop. Moskva, Voen. izd-vo Ministerstva  
oborony SSSR. 1955. 351 p. (MLRA 8:11)  
(Military education)

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1496  
 AUTHOR SLAVNOV, V.V.  
 TITLE The Free Heat Convection in Vertical Metal Tubes with a Round Cross Section.  
 PERIODICAL Žurn.techn.fis, 26, fasc.9, 2002-2004 (1956)  
 Issued: 10 / 1956 reviewed: 10 / 1956

G.A.OSTROUMOV, in his work on "Free Convection under the Conditions of an Interior Problem", GTI, 1952, obtained a formula which, for the convection parameter, determines the beginning of the creation of a steady laminary convection motion of a liquid. This liquid fills a vertical cylindrical tube along which a constant temperature gradient is maintained. An experiment undertaken with a view of checking this equation was carried out only for a value that corresponded to a glass tube filled with distilled water. In the course of the present work four models of one and the same type which were filled with liquid and had tubes of steel, duraluminium, brass, and copper, with a diameter of from 1.154 to 1.352 cm and a length of from 68 to 75 cm were investigated. The scheme and the description of the experimental plant have already been mentioned in the aforementioned work. In the present work a series of photograms is submitted for the model with a copper tube (filled with distilled water) at various degrees of heating  $q$  ( $\text{cal. sec}^{-1}$ ). According to the amount of the vertical temperature gradient resulting from the photogram and the totality of physical parameters of the liquid taken from the tables by DORFMAN and FRIS as well as KEJ and LEBI, and from the measurements of the model, the experimental values of the convection parameter

Žurn.techn.fis, 26, fasc.9, 2002-2004 (1956) CARD 2 / 2

PA - 1496

were determined. According to these values illustrations were drawn from which the modification of the convection parameter may be obtained as a function of the height of the tube. For all values of this parameter the average values are ascertained and results are shown in a table. The experimental results obtained in the case of all four models show satisfactory agreement with the formula. The difference amounted to not more than 1%.

INSTITUTION: Mining Institute "MOLOTOV".

SLAVNOVA, A.V.

Effect of the thickness of the luminescent ink layer on the  
cartographic representation of shaded images. Geod. i kart.  
no.8:69-73 Ag '65. (MIRA 18:9)



25558  
S/170/61/004/008/008/016  
B116/B201

26.5200

AUTHOR: Slavnova, E. I.

TITLE: Cellular structure of convective flow of a liquid in a vertical cylinder with circular cross section

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 8, 1961, 80 - 86

TEXT: The development of a natural convection of a liquid in vertical tubes with circular cross section has been studied theoretically and experimentally. In case of a high calorific power, the flow was experimentally found to have a cellular structure. Theoretically, the problem is solved in first approximation by using the method of Academician Galerkin ( Ref. 1: G. A. Ostroumov, Svobodnaya konvektsiya v usloviyakh vnutrenney zadachi. GITTL, 1952). Theory was found to be sufficiently consistent with experiment. The experiments were based on the fact that horizontal components of the velocity of the liquid particles appear within a wide range of calorific values. These components change the distribution of the mean vertical temperature gradient over the cross section. The distribution of the convection

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S/170/61/004/008/008/016

B116/B201

Cellular structure of convective flow ...

parameter  $(KR)^4 = PrGr$  along the model with increasing calorific power could be determined by photorecording (Fig. 1). The movement of the aluminum-powder particles was visually observed and photorecorded in order to be able to compare the temperature distribution with respect to the height of the model with the hydrodynamic characteristics of the flow of the liquid in the tube (Fig. 2). Photorecording was done for calorific values from 0.018 to 0.659 cal/sec. When the highest calorific power was attained, the flow of the liquid acquired a cellular structure (Fig. 2, picture 3). In every cell, the liquid particles move along closed paths in nearly parallel planes. Two adjacent cells join at the points where hot and cold flows intersect. A cellular motion of liquid of this kind is stable: Within a relatively wide range of calorific values, adjacent cells join at the same points of the height of the tube. If the model deviates from the exact vertical position by large angles (up to  $30^\circ$ ), the flow loses its cellular structure to acquire a laminar one with a diametrically opposite antisymmetry along the entire model. As soon as a sufficiently high calorific power is reached, the cells in a vertical model start moving, and their original positions are occupied by new ones. The flow begins to be agitated simultaneously. In order to compare experiment with theory (Ref. 1), the mean value of the

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S/170/61/004/008/008/016

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Cellular structure of convective flow ...

velocity and temperature are introduced into the equation for free convection, the equation is multiplied by every function of Galerkin, and integration is performed over the volume of the liquid. The resultant equation

$$\begin{aligned} \text{PrGr} = & - \left\{ (4n^3 + 11n^2\mu^2 + 11n^4\mu^4 + 5n^2\mu^6 + \mu^8) \left[ \text{in} \left\{ \frac{\lambda_e}{\lambda} \frac{H_0^{(1)}(\text{in})}{H_1^{(1)}(\text{in})} - \right. \right. \right. \\ & \left. \left. - \frac{J_0(\text{in})}{J_1(\text{in})} \right\} - \left( \frac{\lambda_e}{\lambda} - 1 \right) \right] \right\} \left\{ \mu^2 \left[ \left\{ \frac{\lambda_e}{\lambda} (n^2 + \mu^2) + (\mu^2 - n^2) \right\} - \right. \right. \\ & \left. \left. - (\mu^2 + n^2) \text{in} \cdot \left\{ \frac{\lambda_e}{\lambda} \frac{H_0^{(1)}(\text{in})}{H_1^{(1)}(\text{in})} - \frac{J_0(\text{in})}{J_1(\text{in})} \right\} \right] \right\}^{-1} \end{aligned} \quad (10)$$

determines the PrGr number. Then, the equation

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Cellular structure of convective flow ...

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S/170/61/004/008/008/016  
B116/B201

(Fig. 3);  $T_e$  is the temperature disturbance inside the layers;  $H_1^{(1)}$  (inr) is a Hankel function of first order;  $\lambda_1$  is the thermal conductivity of the tube material;  $\lambda_{ij}$  is the thermal conductivity of the insulator;  $R_1$  and  $R_2$  are the inner and the outer radius, respectively, of the tube.

Fig. 4 was obtained with the aid of a table presented in Ref. 5 (Yanke Ye. and Emde F. Tablitsy funktsiy. GITTL, 1949). Theoretical results diverged from experimental ones by 2.2 % G. A. Ostroumov and Ye. M. Zhukhovitskiy are thanked for valuable hints. There are 4 figures and 5 Soviet-bloc references.

ASSOCIATION: Meditsinskiy institut, g. Perm' (Medical Institute, Perm')

SUBMITTED: February 15, 1961

Fig. 1: Convection parameter as a function of the distance  $z$  (cm) to the furnace for different calorific values  $q$  (cal/sec). Legend: (1) 0.18; (2) 0.041; (3) 0.073; (4) 0.165; (5) 0.293. Fig. 2: Visually observed motion of aluminum-powder particles stirred in water at different calorific values. Legend: (1) heating.  
Card 6/9

KHOMYAKOV, K.G.; KHOLLER, V.A.; SLAVNOVA, G.K.

Investigation of magnesium-cadmium alloys. Report No.3: True heat capacity of magnesium-cadmium alloys closely related to  $MgCd_3$  by composition. Vest.Mosk.un.Ser.mat.,mekh.,astron.,fiz.,khim. 13 no.4: 223-230 '58. (MIRA 12:4)

1. Kafedra obshchey khimii Moskovskogo universiteta.  
(Magnesium-cadmium alloys--Thermal properties)

S/078/63/008/001/016/026  
B189/B101AUTHORS: Slavnova, G. K., Luzhnaya, N. P., Medvedeva, Z. S.

TITLE: Phase diagram of the system indium - selenium

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 8, no. 1, 1963, 153 - 159

TEXT: To study the system indium - selenium a series of melts was prepared in quartz ampoules with argon atmosphere, with compositions varying between 98 at% Se + 2 at% In and 2 at% Se + 98 at% In. The reaction temperatures varied between 600° and 900°C according to the composition of the mixture. The heating time was 6 - 10 hours. The annealing temperatures were 190 ± 10°C or 400 ± 10°C. The phase diagram (Fig. 2) of the system In-Se was plotted on the basis of the thermal analysis of the samples; in some cases also on that of X-ray analysis, which gave corresponding results. The regions where the known compounds InSe, In<sub>2</sub>Se<sub>3</sub>, and In<sub>2</sub>Se exist were determined. The following melting points were obtained for these substances: InSe 660 ± 10°C, In<sub>2</sub>Se<sub>3</sub> 900 ± 10°C, In<sub>2</sub>Se 540 ± 10°C (melting under decomposition). The following temperatures of polymorphous conversions were found: α⇌β: 200 ± 10°C; β⇌γ: 650 ± 10°C; γ⇌δ: 750 ± 10°C. There are 3 figures and 3 tables.

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SLAVNOVA, G. K.  
AID Nr. 994-6 20 June

DIAGRAM OF THE In — Se SYSTEM (USSR)

Slavnova, G. K., N. P. Luzhnaya, and Z. S. Medvedeva. Zhurnal  
neorganicheskoy khimii, v. 8, no. 5, May 1963, 1199-1203.

S/078/63/008/005/011/021

On the basis of a thermal analysis of the InSe — In<sub>2</sub>Se<sub>3</sub> system containing 50 to 60 at.% Se, data on the microstructure and microhardness of individual alloys, and earlier studies by the authors, the phase diagram of the In — Se system for the entire concentration range of components has been plotted. In addition to In<sub>2</sub>Se, InSe, and In<sub>2</sub>Se<sub>3</sub>, the existence of a new compound -- In<sub>5</sub>Se<sub>6</sub> -- has been established. It was found that 1) In<sub>2</sub>Se is formed at  $540 \pm 10^\circ\text{C}$  by the peritectic reaction between InSe and a melt containing 30 at.% Se; 2) InSe melts at  $660 \pm 10^\circ\text{C}$ ; 3) In<sub>5</sub>Se<sub>6</sub> melts with decomposition at  $660 \pm 10^\circ\text{C}$  and undergoes the polymorphic  $\alpha \rightleftharpoons \beta$  transformation at  $550 \pm 10^\circ\text{C}$ ; and 4) In<sub>2</sub>Se<sub>3</sub> undergoes the polymorphic transformation

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AID Nr. 994-6 20 June

DIAGRAM OF THE In — Se SYSTEM [Cont'd]

S/078/63/008/005/011/021

$\alpha \approx \beta$  at  $200^{\circ}\text{C}$ ,  $\beta \approx \gamma$  at  $650 \pm 10^{\circ}\text{C}$ , and  $\gamma \approx \delta$  at  $750^{\circ}\text{C}$ . The compounds have the following Brinnell microhardness:  $\text{In}_2\text{Se}$ ,  $287 \text{ kg/mm}^2$  (load, 30 g);  $\text{InSe}$ ,  $60 \text{ kg/mm}^2$  (30 g);  $\alpha\text{-In}_5\text{Se}_6$ ,  $393 \text{ kg/mm}^2$  (30 g); and  $\alpha\text{-In}_2\text{Se}_3$ ,  $50.8$  to  $59.4 \text{ kg/mm}^2$  (20 g). Micrographs of individual compounds are given.

[BAO]

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L 11263-63 EWP(q)/EWT(m)/BDS--AFFTC/ASD--JD

ACCESSION NR: AP3003476

S/0078/63/008/007/1654/1660

AUTHOR: Slavnova, G. K.; Yeliseyev, A. A.TITLE: X-ray analysis of indium-selenium alloys 54

SOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 7, 1963, 1654-1660

TOPIC TAGS: indium, selenium, indium-selenium system, x-ray diffraction analysis, powder method, phase diagram,  $\text{In}_2\text{Se}_3$ ,  $\text{InSe}$ ,  $\alpha\text{-In}_2\text{Se}_3$ ,  $\beta\text{-In}_2\text{Se}_3$ ,  $\text{In}_5\text{Se}_6$ , phase boundary

ABSTRACT: An earlier investigation of the indium-selenium system (G. K. Sladkova et al. Zh. neorgan. khimii, 8, 153 (1963)) has been continued with the use of the x-ray diffraction powder method. The present study was undertaken to determine the phase composition and phase boundaries of the system and to supplement the phase diagram, shown in Fig. 1 of the Enclosure. On the basis of x-ray analysis and intensity and  $\sin^2$  data, it was concluded that in the  $\text{Se-In}_2\text{Se}_3$  region only the  $\text{Se}$ ,  $\alpha\text{-In}_2\text{Se}_3$ , and  $\beta\text{-In}_2\text{Se}_3$  phases are present and that the interaction of  $\text{Se}$  with  $\text{In}_2\text{Se}_3$  is eutectic in character. The latter conclusion is in agreement with thermal-analysis data previously reported. A new compound designated the X-phase- $\text{In}_5\text{Se}_6$ —was found to lie in the 54 to 55 at%  $\text{Se}$  range. X-ray analysis revealed

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SLAVNOVA, G.K.

Polymorphism of  $\text{In}_2\text{Se}_3$ . Zhur. neorg. khim. 8 no.10:2217-2221  
O '63. (MIRA 16:10)

1. Institut obshchey i neorganicheskoy khimii im. N.S. Kurnakova  
AN SSSR.

(Indium selenides) (Polymorphism)

S/0078/64/009/005/1174/1181

ACCESSION NR: AP4036969

AUTHOR: Luzhnaya, N. P.; Slavnova, G. K.; Medvedeva, Z. S.; Yeliseyev, A. A.

TITLE: The In-As-Se system

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 5, 1964, 1174-1181

TOPIC TAGS: indium arsenic selenium system, InAs As sub 2 Se sub 3 system, thermal analysis, x ray analysis, microstructural analysis, InAs sub 3 Se sub 3, thermogram, solid solution, InAs, phase diagram, liquidus surface diagram

ABSTRACT: The nature of the reactions of the components of the ternary system In-As-Se along the InAs-As<sub>2</sub>Se<sub>3</sub> section was studied by thermal, x-ray and microstructural analyses. The previously unknown ternary compound InAs<sub>3</sub>Se, melting congruently at 800C (fig. 1) was found. Thermograms for InAs, InAs<sub>3</sub>Se, 10, 50, and 70 mol% As<sub>2</sub>Se<sub>3</sub> and As<sub>2</sub>Se<sub>3</sub> are given. Microstructural photographs and x-ray data for these compositions are shown. There was indicated the existence of a relatively small area of solid solutions based on InAs which contained up to about 10 mol% As<sub>2</sub>Se<sub>3</sub>. An orienting diagram of the liquidus surface of the ternary system In-As-Se was constructed from the authors' and literature data (fig. 2).

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ACCESSION NR: AP4036969

ENCLOSURE: 01

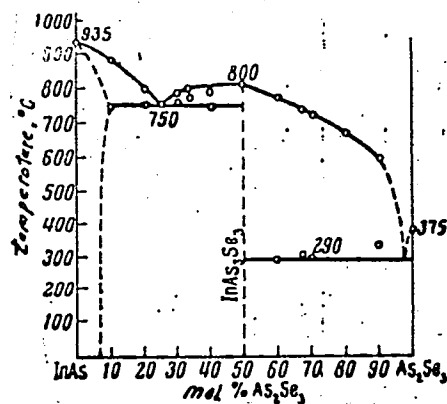


Fig. 1. Phase diagram of the InAs-As<sub>2</sub>Se<sub>3</sub> section (according to heating curves, annealed alloys)

Card 3/4

SELENKOVA, S.S., assistant; KAVUCH, S.A., doctor of technical sciences, prof.

Infrared spectroscopy in the investigation of polymeric materials.  
Report No.1. Nauch. trudy MIIK no.2:1977-1978.

(MIRA 17:11)

1. Kafedra fiziki i tekhnologii isledovaniya i razvitiya plastichnykh  
materialov Moskovskogo tekhnologicheskogo inzhenernogo inzhenernogo pro-  
myshlennosti.

С.П.Пилип, ассистент; ПАВЛОВ, С.А., доктор техн. наук, проф.

Spectrophotometric study of polyvinyl chloride films. Russ.  
trudy VTIIF no.28:72-74 63. (MIRA 17:11)

1. Наблюдения физики и технологии полимеризации кожи и пленочных  
материалов лекковского технологического института легкой про-  
мышленности.

SLAVNOVA, S.S., assistant; PAVLOV, S.A., doktor tekhn. nauk, prof.

Physical methods of analysis of the supermolecular structures of polymers. Nauch. trudy MTILP no.29:103-116 '64. (MIRA 18:4)

1. Kafedry fiziki i tekhnologii iskusstvennoy kozhi i plenochnykh materialov Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

SLAVNOVA, S.S.; KIRAKOSJANC, M.Ch. [Kirakosyants, M.Kh.]; STRACHOV, I.P.  
[Strakhov, I.P.], prof.; PAVLOV, S.A., prof.; BENES, Antonin  
[translator]; BLAZEJ, Anton, doc. inz. CSc. [editor]

Research of tanning effects of stabilized sulfate complexes of  
aluminum by means of infrared adsorption spectroscopy. Kozarstvi  
14 no.9:272-274 Ag '64.

1. Moscow Higher School of Technology of the Light Industry  
(for all except Benes and Blazej). 2. Slovak Higher School  
of Technology, Bratislava for Benes and Blazej).



SLAVNOVA, S.S., assistant; PAVLOV, S.A., doktor tekhn. nauk, prof.;  
SUSLOV, Yu.I., inzh.

Use of infrared spectroscopy in the study of polymeric materials.  
Nauch. trudy MTILP no.30:102-107 '64. (MIFA 18:6)

1. Kafedra fiziki i kafedra tekhnologii iskusstvennoy kozhi i  
plenochnykh materialov Moskovskogo tekhnologicheskogo instituta  
legkoy promyshlennosti.

S/188/62/000/006/005/016  
B187/B102

AUTHORS: Levshin, L. V., Slavnova, T. D.

TITLE: Association of the molecules of rhodamine 6X(6Zh) in mixtures of chloroform and  $\text{CCl}_4$

PERIODICAL: Moscow. Universitet. Vestnik. Seriya III. Fizika, astronomiya, no. 6, 1962, 24-27

TEXT: The binding energy  $U$  was determined quantitatively for associates of 6Zh rhodamine in mixtures of chloroform and  $\text{CCl}_4$  for which an indication of the presence of hydrogen bonds was found in the infrared spectrum. The dependence of the binding energy on the concentration  $C$  and on the temperature  $T$  of the mixtures was studied by means of the electron absorption spectra. The fraction  $X$  of molecules in the monomeric state at a given concentration of the solutions was determined from the absorption spectra. It was found that  $\log(X^2/(1-X))$  is a linear function of  $1/T$ . The value of  $U$  was determined with an error of  $\pm 10\%$  from the factor of proportionality of the above linear function.  $U$  increases noticeably with increasing  $C$  of

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Association of the molecules of...

S/188/62/000/006/005/016  
B187/B102

results. There are 2 figures and 1 table.

ASSOCIATION: Kafedra optiki (Department of Optics)

SUBMITTED: March 15, 1962

Card 3/3

Slavnera, V. N.

**Spectrophotometric investigation of stained nitrates and of crystals of pure dyes.** N. B. Vedeneva and E. N. Slavnera. *Trudy Inst. Krist. Akad. Nauk S.S.S.R.* 11, 109-123 (1963). The methods used were based on the distinctive marks in absorption spectra of crystal and mol.-dissolved dyes (cf. Vedeneva, C.I. 49, 1105b). For the very strong absorption of tabular, though extremely thin, crystals of methylene blue, a semiquant. comparison method was developed. The max. of absorption for  $\lambda = 600 \text{ m}\mu$  was very distinct. The corresponding max. in a 0.002% soln. in  $\text{H}_2\text{O}$  at  $\lambda = 600 \text{ m}\mu$  was observed at  $\lambda = 610 \text{ m}\mu$  and in a soln. contg. 0.25%  $\text{Pb}(\text{NO}_3)_2$  at  $\lambda = 610 \text{ m}\mu$ . The same was observed for  $\lambda = 610 \text{ m}\mu$  in the case of a monomorphous suspension stained with methylene blue. For a monomorphous suspension stained with methylene blue, the max. was  $\lambda = 630 \text{ m}\mu$  and for dried stained kaolinite  $\lambda = 610 \text{ m}\mu$ . The max.  $\lambda = 656 \text{ m}\mu$  was characteristic for monomeric, that at  $\lambda = 600 \text{ m}\mu$  for dimeric methylene blue. This dye, adsorbed on a glass plate, showed a beautiful dichroism, with absorption max. at 490 and 610  $\text{m}\mu$ , parallel and perpendicular to the vibration direction of the polaroid eyepiece filter. In stained crystals of  $\text{Ba}(\text{NO}_3)_2$  the max. was at 490  $\text{m}\mu$ , and it was concluded that methylene blue was dissolved but crystd. in submicroscopic individual crystals included in the nitrate crystals. Methylene green, which stains these nitrates intensely, too, showed a min. of absorption at  $\lambda = 500 \text{ m}\mu$  and a strong max. at 610  $\text{m}\mu$ ; adsorbed on kaolinite the max. was at 600  $\text{m}\mu$ , for montmorillonite at 630  $\text{m}\mu$ . Crystd. methylene green (from pure  $\text{H}_2\text{O}$  soln.) had a strong dichroism, with max. in the ultraviolet and at  $\lambda = 560 \text{ m}\mu$  for the 2 principal vibrations. The corresponding max. for crystals grown from a soln. contg.  $\text{Ba}(\text{NO}_3)_2$  were below 450  $\text{m}\mu$  and 520  $\text{m}\mu$ . For single crystals and a cryst. powder of  $\text{Ba}(\text{NO}_3)_2$  stained with methylene blue, the max. was  $\lambda = 560 \text{ m}\mu$ , corresponding to cryst. inclusions of the dye. By pulverization a shift of the max. to 640  $\text{m}\mu$  was repeatedly

observed; this effect was particularly strong in  $\text{Pb}(\text{NO}_3)_2$  stained with new methylene blue. Evidently, in  $\text{Pb}(\text{NO}_3)_2$  the state of methylene blue is variable between mol. dispersion and crystals inclusions in the nitrate. The stained crystals of  $\text{Ba}(\text{NO}_3)_2$  showed a beautiful sector subdivision with pleochroism, indicating the typical growth pyramids. It is not believed that these phenomena are a typical epitaxis but have the orientation type character of glass slides.  $\text{Pb}(\text{NO}_3)_2$  with some mol. soln. (0.002% at 600  $\text{m}\mu$ ) for the dye is inferior to  $\text{Ba}(\text{NO}_3)_2$  in staining. A nearly identical effect is found in a staining of  $\text{Ba}(\text{NO}_3)_2$  with a mol. soln. of methylene blue. The growth of the crystals of  $\text{Ba}(\text{NO}_3)_2$  stained with methylene blue (cf. Ehrlich, C.I. 26, 1413) and  $\text{K}_2\text{SO}_4$  stained by Alizarin Yellow (cf. Buckley, C.I. 28, 5721\*) with a "superstructure" layers of the foreign substance. The kinetics of the crystn. of methylene blue with  $\text{Ba}(\text{NO}_3)_2$  is discussed in details under the assumption that  $\text{Ba}^{++}$  enhances the polymerization tendency of the dye which is adsorbed on the crystal faces of the salt and crystallizes itself under the action of the electrostatic fields of the nitrate surface. With  $\text{Pb}(\text{NO}_3)_2$  the cations of the dye are more strongly bound on the surface, and a "fixation" of mol. type takes place similar to that of benzidine on clay minerals, also following a geometric-structural analogy in the lattice dimensions. Thus, the growth pyramids and distinctly stained dendrites are explained, which are much different from the noncolored crystal faces. The electrostatic field conditions of  $\text{Ba}^{++}$  and  $\text{Pb}^{++}$  are much different.  $\text{Sr}^{++}$  in  $\text{Sr}(\text{NO}_3)_2$  is more similar to  $\text{Pb}(\text{NO}_3)_2$  and shows, therefore, the max. of the methylene blue stained crystals at  $\lambda = 590 \text{ m}\mu$ . Its staining mechanism must be very similar, viz. of the "mol. type". W. B. Riedel

SLAVNOVA, Ye.N.; SONIN, I.N.

Density of synthetic corundum. Trudy Inst.krist.no.8:35-40 '53.  
(MLRA 7:5)  
(Corundum)

SLAVOVA, Ye. N.

The Interaction of Organic Dye Admixtures With the Facets of Growing Crystals."  
Cand Chem Sci, Inst. of Crystallography Acad Sci USSR, Moscow, 1954. (RZhKhim, No 2,  
Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher  
Educational Institutions (13)  
SO: Sum. No. 598, 29 Jul 55

SLAVNOVA, Ye. N.

B-5

Category: USSR / Physical Chemistry - Crystals

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 29729

Author : Slavnova Ye. N.

Inst : Institute of Crystallography, Academy of Sciences USSR

Title : Some Data Concerning Spectrophotometric Investigation of Potassium Chrome Alum.

Orig Pub: Tr. In-ta kristallogr. AN SSSR, 1956, No 12, 132-140

Abstract: Investigation of the cause and specific features of the formation of a green vitreous product which accumulates in solutions of chrome alum (CA), on storage and decreases the yield of crystals on crystallization. By spectro-photometric studies of solutions of CA, freshly prepared as well as of solutions kept in storage for different periods, it was ascertained that the former and the latter containing up to 5% of total chromium salts, conform to Beer's law. On the basis of Beer's law, as applied to freshly prepared solutions of CA, a procedure has been developed for a quantitative determination of the CA content of mixed crystals.

Card : 1/1

-26-

SLAYNOVA, Ye. N.

✓ Characteristics of the interaction of strontium nitrate with methylene blue during crystallization. E. N. Slaynova. Doklady Akad. Nauk S.S.S.R. 107, 693-695 (1959). Vedeneva and S. (C.A. 50, 14855) studied  $Pb(NO_3)_2$  and  $Ba(NO_3)_2$  stained by methylene blue. Cubic  $Sr(NO_3)_2$  was crystd. from supersatd. solns. at  $40^\circ$  (at room temp. the monoclinic  $Sr(NO_3)_2 \cdot 4H_2O$  from pure solns. is stable); the concns. in the dye were varied between  $10^{-4}$  and  $2 \times 10^{-3}\%$ . The cubic crystals show the simple forms  $\{100\}\{111\}\{111\}$ . uniformly colored by methylene blue in violet with a max. of absorption at  $\lambda = 580 m\mu$ . The dye stabilizes the cubic modification of  $Sr(NO_3)_2$ ; thus it was possible to crystallize stained nitrate also at room temp. In contrast to  $Pb(NO_3)_2$  there is no upper limit of concn. for the miscibility of the nitrate with the dye. In the most concd. methylene blue solns. the crystal habit of  $Sr(NO_3)_2$  becomes pentagonal-dodecahedral, ( $Ba(NO_3)_2$  is octahedral). An extensive analysis of the absorption curves of the pure dye solns., the supersatd. nitrate + dye solns., and the mother brines from which the stained crystals originated showed the different role of monomeric (with an absorption max. at  $\lambda = 668.8 m\mu$ ) and dimeric methylene blue (max. at  $600 m\mu$ ) in the solns. The abs. optical d. curves of the mother brines indicate the strong impoverishment, especially of the initial concns.  $1 \times 10^{-3}$  and  $3 \times 10^{-2}\%$ , in the prevailing monomeric methylene blue mol. The cubic colored crystals show no dichroism, and only the absorption max. at  $\lambda = 580 m\mu$ . There are, however, dichroic portions, with maxima of absorption at  $630 m\mu$  and about  $480 m\mu$ . The first max. corresponds to the double fixation of methylene blue (cf. C.A. 49, 44055), the max. near  $500 m\mu$  to the monomeric mol., that near  $600 m\mu$  to the dimeric mol. of the dye in the crystals.

W. Eitel



SLAVNOVA, Ye. N.

PRIKHOT'KO, A F

24(7) p 3 PHASE I BOOK EXPLOITATION SOV/1365  
L'vov. Universitet

Materialy I Vsesoyuznogo soveshchaniya po spektroskopii. t. 1:  
Molekulyarnaya spektroskopiya (Papers of the 10th All-Union  
Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy)  
[L'vov] Izd-vo L'vovskogo univ-ta, 1957. 499 p. 4,000 copies  
printed. (Series: Itsi: Fizichnyy zbirnyk, vyp. 3/8/)

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po  
spektroskopii. Ed.: Jazer, S.L.; Tech. Ed.: Saranyuk, T.V.;  
Editorial Board: Landsterg, G.S., Academician (Resp. Ed., Deceased),  
Neporent, B.S., Doctor of Physical and Mathematical Sciences,  
Fabelinskiy, I.L., Doctor of Physical and Mathematical Sciences,  
Fabelinskiy, V.A., Doctor of Physical and Mathematical Sciences,  
Kornitskiy, V.G., Candidate of Technical Sciences, Rayskiy, S.M.,  
Candidate of Physical and Mathematical Sciences, Klimovskiy, L.K.,  
Candidate of Physical and Mathematical Sciences, Miliyanchuk, V.S.,  
Candidate of Physical and Mathematical Sciences, and Glauberman,  
A. Ye., Candidate of Physical and Mathematical Sciences.

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Card 10/30

SOV/2577

Slavova, Ye. N.  
24(2)  
Akademiya nauk SSSR. Institut kristallografi  
Rost kristallov, tom. 2 (Growth of Crystals, Vol. 2) Moscow, 1959. 238 p.  
Errata slip inserted. 2,000 copies printed.

Resp. Eds.: A. V. Shubnikov, Academician, and N. N. Sheftal', Doctor of Geological and Mineralogical Sciences; Ed. of Publishing House: K. S. Aleksandrov; Tech. Ed.: T. V. Polyakova.

PURPOSE: This book is intended for scientists and researchers engaged in crystallography and in growing industrial monocrystals.

COVERAGE: This is the second of two volumes on crystal growth. The first volume contained reports delivered at the First Congress on Crystal Growth. The present volume also contains an extensive study of corundum synthesis by S. K. Popov [deceased]. These studies reflect the development of Soviet research in crystallography in the period following the first congress. The studies contain some essentially new results obtained by Soviet scientists. The editors express the hope that these studies will unite the efforts of Soviet scientists engaged in studying the process of crystal growth and in growing

Card 1/5 4

SOV/2577

Growth of Crystals (Cont.)

ing industrially valuable monocrystals. No personalities are mentioned. References are given at the end of each article.

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Growth of Crystals (Cont.)

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AVAILABLE: Library of Congress

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SOV/70-4-4-15/34

Regularities in the Take-up of Capri Blue By Growing Crystals of  
Lead Nitrate

intensely coloured even at small concentrations. The absorption spectrum of the dye as adsorbed corresponds neither to that of the monomer nor to that of the dimer molecules but to that of the crystalline material. The orientation of the molecules can be deduced from the dichroism. This orientation is the same in all parts of the crystal. There are 7 figures, 1 table and 4 Soviet references.

ASSOCIATION: Institut kristallografii AN SSSR (Institute of Crystallography of the Ac.Sc., USSR)

SUBMITTED: March 17, 1959

Card2/2

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76014  
SOV/70-4-5-36/36

AUTHORS: Slavnova, Ye. N., Sheftal', N. N.  
TITLE: The Second Conference on Crystal Growth  
PERIODICAL: Kristallografiya, 1959, Vol 4, Nr 5, p 804 (USSR)  
ABSTRACT: The Second Conference on Crystallography, organized by the Crystallographical Institute of the Academy of Sciences of the USSR (Institute kristallografi AN SSSR) in cooperation with the Scientific Council on Crystal Formation at the Division of Physics and Mathematics of the Academy of Sciences of the USSR (Nauchnyy sovet po probleme "Obrazovaniye Kristallov" pri OFMN AN SSSR), was held in Moscow from March 23 to April 1, 1959. The conference, opened by Academician A. V. Shubnikov and participated in by over 600 scientists, discussed 96 reports, of which 12 were presented by scientists from abroad, from such countries as Czechoslovakia, Hungary, China, Bulgaria, Poland,

Card 1/3

The Second Conference on Crystal Growth

76014

SOV/70-4-5-36/36

exhibition, displayed in connection with the Conference, showed, among other artificial crystals, colorless and colored quartz, up to 3.5 kg in weight, and jewels grown in Czechoslovakia. The Conference appealed to the Presidium of the Academy of Sciences of the USSR to establish an award, to be named the G. V. Vul'f Prize, as a reward for outstanding achievements in artificial crystal production and in the study of crystal growth. The educational significance of the Conference and its importance for the further advancement of crystal growth in the "Socialist" countries are emphasized.

ASSOCIATION: Crystallographical Institute of the Academy of Sciences of the USSR (Institut kristallografii AN SSSR)

SUBMITTED: August 13, 1959

Card 3/3

The Effect of the Content of Thionine Blue  
in a Solution on Its Adsorption by the  
Growing Lead Nitrate Crystals

78104

SOV/70-5-1-13/30

analysis after dissolving the crystals again. One series of the experiments proved the increase of the dye content in the crystals from 0.000112% to maximum 0.0659% at 0.02% dye content in the original solution and the drop of the dye content in the crystals with the further increase of its content in the solution. That means that the adsorption factor increases from 0.09 for the crystals grown from a solution contaminated with 0.002% thionine blue to the maximum 5.15 at optimum contamination of the solution. The figures for another series of experiments are illustrated in Fig. 2. The experiments revealed that the dye occurs in the crystals in ionic form. The displaced positions of maxima on the adsorption curves for the original solutions and those after the dissolution of grown crystals point to the occurrence of more complex particles in the solutions from the crystals grown at the presence of 0.03% dye min. Such particles evidently do not occur before

Card 2/4

The Effect of the Content of Thionine Blue  
in a Solution on Its Adsorption by the  
Growing Lead Nitrate Crystals

78104  
SOV/70-5-1-13/30

crystallization takes place. They seem to result because of some chemical reactions between lead ions and the dye cations that supposedly take place on the faces of growing crystals. The compounds resulting from these reactions were not established, but their effect is well pronounced in the changing intensity of colors. The fresh solutions immediately after the dissolution of crystals are far less intensively colored than they should be in the presence of the dye they contain; the color becomes increasingly intensive with the time elapsed after dissolution. No changes in color intensity take place in the solutions before crystallization. N. G. Martynova is acknowledged for assistance. There are 4 figures; 2 tables; and 2 Soviet references.

ASSOCIATION: Crystallographical Institute of the Academy of Sciences,  
USSR (Institut kristallografi AN SSSR)

SUBMITTED: July 22, 1959  
Card 4/4



New data regarding...

S/564/57/000/000/009/029  
D258/D307

solutions more concentrated than  $3 \times 10^{-3}$  wt.%. Up to 0.4% MB is absorbed by  $\text{Ba}(\text{NO}_3)_2$ , and up to 0.04% by  $\text{Pb}(\text{NO}_3)_2$ . In the latter crystals, increasing concentrations of MB promote the growth of the cubic faces. In Ba nitrate crystals, the dye formed crystallites, whose orientation was a function of initial MB concentration in the mother liquor. Crystalline inclusion of such admixtures in crystals is explained by increased admixture concentration in crystal-adjacent layer and ability of admixture particles to migrate over the crystal face, attaching themselves at certain positions and possibly forming local supersaturations on certain faces of the crystal. For structurally similar crystals, inclusion of an admixture is controlled by adsorptive properties of the crystal and the admixture, and by the state of the latter in the initial solution. The experimental assistance of L. I. Tsukerman and Z. D. Markoyani is acknowledged. There are 10 figures.

Card 2/2

SHEFTAL'. N.N., doktor geologo-mineralogicheskikh nauk;  
SLAVNOVA, Ye.N.

Exchange of experience gained in studies on crystal growth.  
Rost krist. 4:245-246 '64. (MIRA 17:8)

1. Otvetstvennyy redaktor sbornika "Rost kristallov" (for  
Sheftal').

SLAVNYI, A.

Currency Question

Important lever of currency circulation planning (Balance of money income and expenditures of the population. M. S. Margolin. Reviewed by A. Slavnyy) Den. i kred. No 1, 1952.

Monthly List of Russian Accessions. Library of Congress, March 1952. Unclassified.

ACCESSION NR: AT4036068

S/2781/63/000/003/0255/0261

AUTHORS: Belikov, A. G.; Goncharenko, V. P.; Mishchenko, V. M.;  
Safronov, B. G.; Slavnyy, A. S.

TITLE: Investigation of coaxial plasma accelerator

SOURCE: Konferentsiya po fizike plazmy\* i problemam upravlyayemogo  
termoyadernogo sinteza. 3d, Kharkov, 1962. Fizika plazmy\* i prob-  
lemy\* upravlyayemogo termoyadernogo sinteza (Plasma physics and  
problems of controlled thermonuclear synthesis); doklady\* konferen-  
tsii, no. 3. Kiev, Izd-vo AN UkrSSR, 1963, 255-261

TOPIC TAGS: plasmoid, plasmoid acceleration, plasma source, high  
temperature plasma, plasma density, discharge plasma

ABSTRACT: A coaxial electrodynamic plasma accelerator is investi-  
gated in order to determine some of its parameters, namely the plas-  
moid velocity, the plasmoid density, the contamination of the plas-

Cord 1/4

ACCESSION NR: AT4036068

ma with heavy ions, and the energy distribution of the ions. The electrodynamic plasma accelerator consists of two coaxial cylinders (72 and 32 mm inside diameter, length of accelerating electrodes 175 mm). The pressure used was  $(1-3) \times 10^{-3}$  m/m<sup>2</sup>, and the working volume was filled with gas using a pulsed valve described by J. Marshall (Fizika goryachey plazmy\* i termoyadernyye reaktsii, Atomizdat, M. 1959, p. 290). The acceleration of the plasma by the coaxial accelerator was investigated as a function of the delay between the start of the entry of the gas into the working volume (more accurately, the start of operation of the hammer of the valve) and the discharge of the source. The discharge was investigated with an internal magnetic probe. The plasmoid velocity was measured with optical (photomultiplier) and external magnetic probes. The mass composition and the energy of the ions of the plasmoids were determined by the Thomson parabola method. The results have shown that two plasmoids, moving with different velocities, are produced during the acceleration of a plasma with a coaxial electrodynamic

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ACCESSION NR: AT4036068

ENCLOSURE: 01

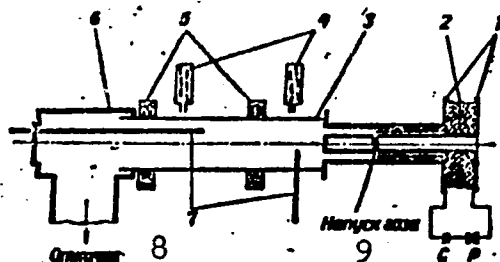


Diagram of accelerator: 1 - source electrodes, 2 - insulator, 3 - glass tube, 4 - photomultiplier, 5 - external magnetic probe, 6 - vacuum chamber, 7 - internal magnetic probe, 8 - vacuum, 9 - gas inlet

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L 12959-63  
ESD-3/SSD

EPF(c)/EWG(k)/EWP(q)/EWT(m)/EWT(l)/BDS/ES(w)-2 AFTC/ASD/  
Pz-4/Pab-4 IJP(C)/AT/JD S/109/63/008/004/020/030

AUTHORS: Fogel', Ya. M., Slabospitskiy, R. P., Slavnyy, A. S.

TITLE: Mass-spectrometric investigation of secondary ion emission in the bombardment of platinum by ions of argon

PERIODICAL: Radiotekhnika i elektronika, v. 8, no. 4, 1963, 684-690

TEXT: This paper was the subject of a report to the 10th Conference on Cathode Electronics held at Tashkent in November 1961. It describes the results of an investigation of the mass-spectrum composition of a secondary positive and negative ion emission which arises when a platinum surface is bombarded with  $Ar^+$  ions having an energy of 22 kev. Also described are the changes in the mass spectrum of the secondary emission arising as a result of the action of gases  $N_2$ ,  $O_2$ ,  $NH_3$ ,  $NO$  and  $H_2O$  upon a previously de-gassed surface of platinum. The relationship between the number of secondary ions knocked off and the temperature of the target is also investigated. The authors feel there is a "profound relationship" between the processes occurring on the surface of the metal and the behavior of the mass spectrum of the secondary ion emission. They state it would be desirable to conduct a simultaneous investigation of the mass spectrum of the secondary ion emission

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L 12959-63

S/109/63/008/004/020/030

Mass-spectrometric investigation.....

and the mass spectrum of the gas phase, since in some cases a process of desorption of particles in the gas phase occurs, which alters the composition of the latter.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kovo (Kharkov State University imeni A. M. Gor'kiy)

SUBMITTED: 26 April 1962; after revision: 21 September 1962

Card 2/2



S/0057/64/034/005/0847/0852

ACCESSION NR: AP4035694

AUTHOR: Belikov, A.G.; Goncharenko, V.P.; Mishchenko, V.M.; Safronov, B.G.; Slavnyy, A.S.

TITLE: Production of fast plasma bursts with a coaxial plasma gun

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.5, 1964, 847-852

TOPIC TAGS: plasma, plasma gun, coaxial gun, plasma burst, fast ion

ABSTRACT: This paper reports a continuation of previous work by the same five authors (Sb. "Fizika plazmy\* 1 problemy\* upravlyayemogo termoyadernogo sinteza", No.3, Izd. AN USSR, Kiev, 1964). The velocity, density and other properties of deuterium plasma bursts obtained with a coaxial cylindrical plasma gun were determined as functions of the discharge voltage and the time delay between admission of the gas and initiation of the discharge. Plasma bursts were obtained which contained more than  $10^{17}$  particles and had densities greater than  $10^{13}$  cm<sup>-3</sup> and velocities greater than  $8$  to  $9 \times 10^7$  cm/sec. The plasma gun consisted of two coaxial cylinders 32 mm and 72 mm in diameter and 17.5 cm long. One cubic centimeter (standard conditions) of deuterium was admitted to the annular space through openings in the wall of the in-

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ACCESSION NR: AP4035694

ner cylinder. Gas began to enter the interelectrode space 170 microsec after the valve was triggered, and the valve remained open for 80 microsec. A 27-microfarad capacitor charged to 20 kV or less was discharged through the gun. The resulting plasma burst was observed in a 95-mm glass drift tube. No confining axial magnetic field was used. The plasma bursts were analyzed with a Thomson mass spectrometer located 2.5 meters from the source. The velocity of the bursts was determined from the flight time between two external magnetic probes located 80 cm and 200 cm from the gun. The density was monitored by observing the cut-off of 8-mm microwaves at 80 cm from the source. In some cases the total energy of the plasma was estimated from calorimetric measurements. The ions in the plasma bursts were distributed over a wide range of energies. The velocity of the burst as determined from the flight time between the two magnetic probes agreed with that calculated from the ion energies as measured with the mass spectrometer. The highest velocities were achieved with a delay (between triggering the gun and applying the potential) of 200 to 250 microsec. When the delay was less than 170 microsec, gas did not enter the interelectrode space until after the potential had been applied. Under these conditions only slow bursts were formed. Normally there were two bursts per shot, and these had widely different velocities. When the delay was increased beyond about 250

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Card

ACCESSION NR: AP4035694

microsec, the slow burst grew in size at the expense of the fast one, and the two bursts tended to merge. Orig.art.has: 2 formulas, 9 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 11May63

DATE ACQ: 20May64

ENCL: 00

SUB CODE: ME, NP

NR REF SOV: 001

OTHER: 002

3/3

Card-

SLAVNYI, I.

Planning currency circulation in a village. Den. i kred. 20  
no.12:9-16 D '62. (MIRA 16:1)

(Money) (Agriculture—Finance)

SLAVNIY, I.

The financial balance is an important means for improving planning.  
Fin. SSSR 37 no.5:39-47 My '63. (MIRA 16:5)  
(Russia—Economic policy) (Finance)

SLAVNYY, I.

Money

Raising the economic level and stabilizing the circulation of money in the U. S. S. R., Den.  
i kred., No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

SLAVNYY, I.

Wages

Significance of control of wage funds' expenditure in national economy.  
I. Slavnyy. Sov. fin. 13, No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED.

SLAVNYI, I.

Russia - Industries

An economy regime is the most important lever for a further rise in the national economy. Fin. i kred. SSSR no. 2, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.



SLAVNYI, I.

Currency circulation and the U.S.S.R. budget. Den. 1 kred.  
13 no. 1:8-15 Ja '55. (MIRA 8:2)  
(Money)(Budget)

SLAVNYI, I.

"Currency circulation and credit in the U.S.S.R."; a textbook for  
finance and economics institutes and departments. Reviewed by  
I.Slavnyi. Den. i kred. 13 no.9:53-62 S'55. (MIRA 8:12)  
(Money) (Credit)

SLAVNYY, I.

Control through the ruble is an important function of financial  
organs. Fin.SSSR 16 no.9:13-22 S'55. (MLRA 8:12)  
(Finance)

SLIVNYI, I.D.

FIGURE, SEE THE ALKALINE WIDE

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SOVIET UNION V PIAIYI PIAIYI (SWIFT FINANCE UNDER THE FIFTH FIVE-  
YEAR PLAN, 1956) H. A. PIAIYI I. L. O. SLIVNYI. MOSCOW, SOVIET UNION, 1956.

100 P. THE ES.

ALPHABETICAL FOOTNOTES.

SLAVNYY, I.

Some problems in the planing of currency circulation. Den.1  
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(Money)

SITNIN, V.; SLAVNYI, I.

The organization of payments in the national economy. Fin.SSSR 17  
no.3:32-38 Mr '56. (Clearinghouse) (MIRA 9:7)

SLAVNYY, I.

"Business accounting in industry in the U.S.S.R." Fin. SSSR 17 no.10:  
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(Accounting) (Industrial management)

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SITNIN, V.; SLAVNYY, I.

Interrelationship between the budget and credit. Fin. SSSR 18  
no.2:18-26 F '57. (MLRA 10:5)  
(Budget) (Credit)



SLAVNYI, I.

"Currency circulation and credit in the U.S.S.R."; textbook for  
institutions of higher learning. Reviewed by I. Slavnyi. Den. 1  
kred. 16 no.4:88-95 Ap '58. (MIRA 11:5)  
(Banks and banking)

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Improve the planning of currency circulation. Den. 1 kred. 16  
no.12:31-36 D '58. (MIRA 11:12)  
(Finance)

SLAVNYY, I.

Balances of the populations' monetary income and spending in the  
republics is an important part of national economic planning.  
Fin. SSSR 19 no.10:15-23 0 '58. (MIRA 11:11)  
(Income)

MAKSIMOV, G.; OVODOV, G.; EL'YASHEV, L.; SLAVNYI, I.D., otv.red.;  
ROSHCHINA, L., red.izd-va; LEBEDEV, A., tekhn.red.

[The new price scale] Novyi masshtab tsen. Moskva, Gosfin-  
izdat, 1960. 34 p. (MIRA 14:2)  
(Price regulation)

SLAVNYI, I.

An important measure for improving the financial and monetary  
system. Fin.SSSR 21 no.6:15-21 Je '60. (MIRA 13:6)  
(Money)

SLAVNYI, Isaak Davidovich; BATYREV, V., otv. red.; POGODIN, Yu.,  
red. izd-va; TELEGINA, T., tekhn. red.

[Studies in planning currency circulation] Ocherki planiro-  
vaniia denezhnogo obrashcheniia. Moskva, Gosfinizdat, 1961.  
270 p. (MIRA 15:3)

(Money)

SLAVNYI, I.

Developing and improving the planning of currency circulation.  
Den. 1 kred. 19 no.12:3-13 D '61. (MIRA 14:12)  
(Money)

SLAVNYI, I.

The financial system and currency circulation problems. Fin.  
SSSR 22 no.7:18-24 J1 '61. (MIRA 14:7)  
(Money)



SLAVNYY, I.

Problems of currency circulation in the work of financial organs.  
Fin. SSSR 23 no.2:35-41 F '62. (MIRA 15:2)  
(Money)

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Growth of labor productivity is the basis for socialist accumu-  
lation. Fin.SSSR 23 no.11:13-21 N '62. (MIRA 15:12)  
(Labor productivity) (Capital)

SLAVNYI, L.B., inzh.

The manufacture of large block units of electrical equipment is  
an important problem confronting the electric equipment industry.  
Vest.elektroprom. 33 no.12:1-3 D '62. (MIRA 15:12)  
(Electric equipment industry)

32-24-6-14/44

AUTHORS: Abramson, I.S., Malyavkin, L.P.,  
Mogilevskiy, A.N., Slavnyy, V.A.

TITLE: Investigation of the Operation of the Photoelectric  
Stylometer ~~FES~~ -1 (Issledovaniye raboty fotoelektricheskogo  
stilometra tipa ~~FES~~ -1)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 6, pp 695-702 (USSR)

ABSTRACT: The above-mentioned stylometer is used for quantitative emission  
spectral analysis, in which elements are determined one after an-  
other. The optical scheme of the device is similar to that of  
the spectrograph ISP -51 in which any spectral line can be sep-  
arated individually, whereas, on the other hand, the sensitivity  
of the photoelements in the red spectral range is insufficient.  
The method of measuring the intensity of the spectral lines to be  
analyzed, which method is used also in other systems following a  
suggestion made by L.M. Ivantsov and S.M. Rayskiy (Ref 5), is  
applied also in this case. The principle of measuring is described,  
and it is said that this principle is being applied in a new de-  
vice of foreign construction. Selection of the average value of  
exposure is carried out in three different ways: by calibration

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Investigation of the Operation of the Photoelectric  
Stylometer FES-1

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separators, by a combination of the three existing light filters, or by the contacts, according to the measuring scale. The electric part of the device is described and a schematical plan showing the measuring order is given; among other things it is mentioned that the input resistance should not be less than  $10^{14} - 10^{15}$  ohms, that the total range of measurable voltages is subdivided into six parts, and that on the light-source generator GEU-1 a thyatron of relatively low voltage was used in contrast to what was done in other cases, and that a wide area of arc- and spark discharge regimes is obtained. When dealing with the accuracy of the device, the error limit is investigated; it was mentioned that the potentiometers EPV-01 or EPV-0.5 belong to the class 0.5, that the measuring scheme is linear, and that errors are below 0.5%. Moreover, the photometrical error limit was investigated in the case of both a stable and a geometrically unstable light source; results are given. For the determination of analytical errors the influence exercised by the reproducibility of the shape and the quality of the surfaces of the electrodes upon measuring errors were investigated as sources of errors and a number of alloying elements (mainly tungsten in steels) was determined by using the W 4659 Å line. Measurements carried out with the steels P-9 and P-18 disclosed a reproducibility error of 1.2 and 0.8%.

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Investigation of the Operation of the Photoelectric  
Stylometer FES -1

32-24-6-14/44

respectively. The results obtained are compared in a table with those according to Gauss, and errors were found to occur at random. With respect to the application of an internal standard it is stated that a not separated light beam can be used and that in this way better reproducibility is obtained. Besides tungsten, also chromium, manganese, titanium and vanadium were determined, and an analytical error of 1.0-2.0% was found. Determination of silicon in steels presented a number of difficulties, so that e.g. the spectral line of silicon had to be derived according to the iron line for guidance; the linear distance changed proportionally with the temperature. The following factors are mentioned as influencing the amount of the errors: 1.) The formation of charges as a result of deformation of a cable (changes of temperature). 2.) The occurrence of a low EMF in connection with the commutation of the current supply of the electrometer. 3.) The entering of light into the apparatus through the observation microscope. 4.) The binding of the capacity of the current of the two integrating condensers. These faults ought to be remedied; for the first-mentioned case the method of graphiting developed by

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Investigation of the Operation of the Photoelectric  
Stylometer FES-1

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I.V.Podmoshenskiy should be employed. By means of the method described the silicon content of samples produced by the "Serp i molot" works was measured, and it was found that in concentrations of 0.03-1.5% silicon can be determined with an absolute error amounting to from 0.01 to 0.2%. There are 2 figures, 3 tables, and 15 references, 12 of which are Soviet.

ASSOCIATION: Komissiya po spektroskopii i Fizicheskiy institut Akademii nauk  
SSSR (Commission for Spectroscopy and Physics Institute, AS USSR)

1. Spectrum analyzers---Design
2. Spectrum analyzers---Equipment
3. Spectrum analyzers--Operation

Card 4/4

24(7):  
AUTHORS: Abramson, I. S.; Murzin, S. N., SOV/48-23-9-13/57  
Slavnyy, V. A.  
TITLE: On the Influence of "Third" Elements in the Application of  
Undecomposed Light as Internal Standard  
PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959,  
Vol 23, Nr 9, pp 1081-1083 (USSR)  
ABSTRACT: In the application of this method the reproducibility (vosproiz-  
vodimost') of photometrical measurements is not bad. In the  
case of the experiments described, the chromium- and manganese  
content in steels was determined, for which purpose the GEU-1  
generator was used. Moreover, the samples were selected in  
such a manner that the influence exercised by the elements was  
sufficiently great. Chromium was determined by means of stan-  
dards of series Nr 6 of the laboratoriya standartnykh obraztsov  
(Laboratory for Standard Samples), and for the determination  
of manganese standards of series Nr 6 and Nr 28 were used. The  
wave length of the pairs of lines investigated is given, and  
results are shown by table 1. The influence exercised by "third"  
elements was found to exceed the measuring error of measurements,  
in which case the samples were used as cathode. No dependence  
on amperage was found. When undecomposed light was used, the  
influence exercised by "third" elements is not greater, and  
in some cases it is even smaller by 1.5 to double its amount

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SOV/48-23-9-13/57

On the Influence of "Third" Elements in the Application of Undecomposed  
Light as Internal Standard

than if the lines of the base material are used. Further, experiments were carried out for the purpose of reducing the influence exercised by "third" elements. A special device was built for this purpose, in which rotating electrodes were used. This, however, produced the opposite effect: the influence was somewhat intensified. This is explained by a stronger structural influence caused by the lower degree of heating of the sample. Also the method of strong pulse discharges according to Ye. I. Vorontsov was investigated. In this case the surface of the sample was coated with a thin layer of machine oil in order to warrant a local discharge. A reduction of the influence was found to occur. However, owing to the strong background, difficulties arise in photoelectrical measurement. Finally, it is found that the reduction of the influence of "third" elements cannot be attained by the use of one or the other internal standard, analytical lines, the nature of the discharge, the shape of the electrodes or the like, but that new light sources must, in principle, be found. There are 1 table and 8 references, 5 of which are Soviet.

ASSOCIATION: Laboratoriya Komissii po spektroskopii Akademii nauk SSSR (Laboratory of the Commission for Spectroscopy of the Academy of Sciences, USSR)

Card 2/2

ABRAMSON, I.S., MURZIN, S.N., SLAVNYY, V.A.

Determination of the high content of copper in stannous and  
plombous brasses in a PES-1 unit. Zav.lab. 26 no.5:574-575  
'60. (MIRA 13:7)

1. Laboratoriya Komissii po spektroskopii pri Akademii nauk  
SSSR.

(Brass--Analysis) (Copper--Spectra)

S/048/62/026/007/019/030  
B125/B104

AUTHORS: Mogilevskiy, A. N., Abramson, I. S., Slavnyy, V. A., and  
Gilinskaya, M. Ya.

TITLE: Development of a photoelectric method for the successive  
determination of elements

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,  
v. 26, no. 7, 1962, 921-924

TEXT: The general block diagram of the apparatus, constructed at the  
laboratory of the Commission for Spectroscopy AS USSR, for successively  
determining the elements is shown in Fig. 2. When the Fabry-Perot  
etalon (2), used as wavelength standard, is illuminated, the light from  
a light source (1) with continuous spectrum and from light source (3)  
is directed to the entrance slit of a spectral apparatus (4). In the  
focal plane it produces an image with regularly alternating maxima and  
minima. The counter (7) counts the light maxima when the exit slit is  
displaced along the spectrum and stops the motor (8) of a turning  
mechanism as soon as the slit reaches the preset wavelength. The intensity

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S/048/62/026/007/019/030  
B125/B104

Development of a photoelectric ...

ratio between analysis line and standard is measured by a tube electrometer. The programming device (6) controls the entire apparatus. The recording circuit (5) is based on an electrometer with dynamic capacitor. The punch cards for controlling the apparatus contain information on the wavelength of the line used for the analysis (number of interference maxima), times of annealing and exposure, the ideal properties of the light source for determining a given element in the specimen to be analyzed, and the order in which the elements are to be determined. There are 4 figures and 1 table.

ASSOCIATION: Komissiya po spektroskopii Akademii nauk SSSR  
(Commission for Spectroscopy of the Academy of Sciences USSR)

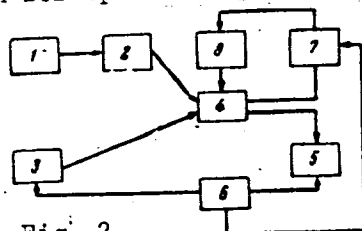


Fig. 2

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S/032/62/028/007/010/011  
B104/B102

AUTHORS:

Abramson, I. S., Kononov, E. Ya., Mogilevskiy, A. N., Murzin, S. N., and Slavnyy, V. A.

TITLE:

A photoelectric device for precisely recording Raman spectra of light

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 7, 1962, 875 - 877

TEXT: A double-beam device was designed, in which the beams are modulated with one frequency, the reference beam and the scattered beam being focused onto a light pickup alternately. The switch-over frequency (23 per sec) is such that the contours of spectral lines can be recorded with great accuracy. Behind the modulator (Fig. 1) the light beam is focused onto a spectral device (4) and thence onto a photomultiplier. The reference beam is led past the spectral apparatus, passed through a blue filter (3), and finally fed to the photomultiplier (5). The signals of the scattered light and that of the reference beam are amplified and fed to a ratiometer which works on the principle of an ЭПН-09 (EPP-09) potentiometer. An automatic voltage divider controls the sensitivity

Card 1/2

A photoelectric device for...

S/032/62/028/007/010/011  
B104/B102

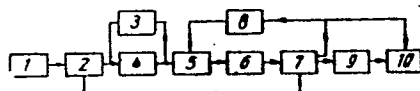
required for Raman lines of different intensities. The Raman line frequency is measured with a Fabry-Perot standard. There are 2 figures. ✓

ASSOCIATION: Komissiya po spektroskopii Akademii nauk SSSR (Commission on Spectroscopy of the Academy of Sciences USSR).

Fig. 1.. Block diagram of device.

Legend: (1) source; (2) modulator; (3) light filter; (4) spectral device; (5) photomultiplier; (6) amplifier; (7) synchronous detector; (8) high-voltage source; (9) automatic voltage divider; (10) ratiometer.

Fig. 1



Card 2/2

SHANNY, Y.A., SHAPEGIN, P.I.

Conditions of the occurrence of gleying processes in the soils  
of the Amur-Lena interfluvium. Pochvovedenie no. 4:98-107 AS '84.  
(MIRA 17:10)

1. Pochvennyy institut imeni V.V. Dokuchayeva.

SLAVNYY, Yu.A.; FORCB'YEVA, E.S.

Deposition of silica from soil solutions during freezing.  
Pochvovedenie no.9:80-84 S '62. (MIRA 16:1)

1. Pochvennyy institut imeni V.V.Dokuchayeva.  
(Amur Valley--Soils--Silicon content)  
(Zeya Valley--Soils--Silicon content)  
(Frozen ground)



YEGOROV, V.V.; ZIMOVETS, B.A.; BONDAREV, A.G.; SLAVNYI, Yu.A.; ORLOVA,  
Ye.M.; KAURICHEVA, Z.N.

Effect of the complex of soil cover on the effectiveness of  
saturation irrigation on large checks. Pochvovedenie no.10:  
6-15 0 '65. (MIRA 18:11)

1. Pochvennyy institut imeni Dokuchayeva.

SLAVOACA, D.

Geological, lithological, and hydrogeological observations in the Sfanta-Ana  
massif, Bodoc mountains.

p. 465  
Vol. 6, no. 3, Mar. 1956  
COMUNICARILE  
Bucuresti

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 5, no. 12  
December 1956

RUMANIA / Chemical Technology, Chemical Products and H  
Their Application, Part 2. - Ceramics, Glass,  
Binders, Concretes. - Ceramics.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61657.

Author : I. Slavoaca.

Inst : Not given.

Title : Fundamental Principles for Solution of Firing  
Problem with Methane in Periodic Kilns of  
Porcelain Industry.

Orig Pub: II-a Consf. tehn.-stint. a ind. usoare. Piele.-  
Cauciuc.-Sticla. (Bucuresti), ASIT, 1957,  
183 - 188.

Abstract: No abstract.

Card 1/1

ROMANIA / Chemical Technology, Chemical Products and H  
Their Application, Part 2. - Ceramics, Glass,  
Binders, Concretes. - Ceramics.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61664.

Author : I. Slavoaca.

Inst : Not given.

Title : Control of Gas Firing in Periodic Kilns of  
Porcelain Industry by Computation of Burning.

Orig Pub: II-a Sonsf. tehn.-stiint. a ind. usoare. Piele.-  
Cauciuc.-Sticla. (Bucuresti), ASIT, 1957,  
189 - 191.

Abstract: No abstract.

Card 1/1